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# **North West Wales Dendrochronology Project Ty Mawr, Druid, Denbighshire**



**EAS Client Report 2009/15  
December 2009**

**Engineering Archaeological Services Ltd  
Unit 2 Glanypwll Workshops  
Ffordd Tanygrisiau  
Blaenau Ffestiniog  
Gwynedd  
LL41 3NW**

**Registered in England N° 286978**

# **North West Wales Dendrochronology Project Ty Mawr, Druid, Denbighshire**

**EAS Client Report 2009/15**

**Commissioned by  
Margaret Dunn  
For  
North West Wales Dendrochronology Project**

**December 2009**

**By  
I.P. Brooks and K. Laws**

**Engineering Archaeological Services Ltd  
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# **North West Wales Dendrochronology Project**

## **Ty Mawr, Druid, House and Barn**

**SJ 0354 4314**

**NPRN 28818 (House and Barn), 41742 (Barn)**

**Status: Grade II Listed**

### ***Introduction***

This report details the recording of the house and barn at Ty Mawr, Druid, undertaken to compliment both the dendrochronological sampling, undertaken by Oxford Dendrochronology Laboratory, and the documentary study undertaken by volunteers for the North Wales Dendrochronology Project. The fieldwork took place on 17<sup>th</sup> November 2009.

### ***Methodology***

The plan of both the house and the barn were made from direct measurements. The majority of the timberwork was recorded by direct measurement, at a scale of 1:20. However, Trusses 1 and 2 in the barn were measured using a Lieca TRC 307 total station which has a reflectorless capability. Photographs were taken with a Nikon D80 digital SLR camera at a resolution of 10.2 mega pixels. Where practical all the photographs included a metric scale

### ***Survey Report***

Ty Mawr is located on the southern side of the A494 (T), approximately 630 m southwest of the junction between the A494 and the A5 at Druid (Figure 1). Whilst the barn is aligned on the road, the house is set back and is roughly at right angles to the barn and road. Both buildings are on the relatively flat plateau overlooking the Afon Alwen. The house is the northwest house of a range of dwellings, partly created by the division of an earlier and longer property. The barn, again, is part of a larger range of agricultural buildings with the recorded buildings occupying the central section of the range of barns aligned with the A494.

Externally the house at Ty Mawr would appear to be an end terrace of a short row of houses (Plate 1). It is one and a half stories high, with rendered walls and a slate roof. Two chimneys are evident, one on the gable end and the other at the division between Ty Mawr and its neighbour. The windows and door are all modern replacements, the two upper front windows sitting within partial dormers with the windows partly below the eaves. Attached to the northern end of the house is an agricultural building, originally a cart shed, although now being used as a garage. This building is not part of this survey and is thought to be an eighteenth or nineteenth century addition.

The ground floor is divided into two principal rooms (a kitchen and parlour) with a small entrance hall from which the stairs to the upper floor are accessed (Figure 2). The kitchen has been improved and shows no features suggestive of an early date. The main room, however, has a number of features which demonstrate the development of the house. Along the northern wall of the room the foot of a cruck frame is evident which is partly embedded in the walls of the house (Plates 2 and 3, Figure 3). Both blades appear to extend up into the upper storey; however, they could not be easily traced in the wall dividing the southern bedroom from the stairwell. Set between the blades of the cruck is the remains of a post and plank partition (Plate 4, Figure 3). Each of the posts is approximately 0.30 m wide set with a separation of approximately 0.25 m. The posts and planks are set between two horizontal rails, the upper of which is jointed to the cruck frame. Two blocked slots in the upper corners of the partition and a number of empty peg holes may suggest the position of a dais canopy along this wall.

A second pair of cruck blades was located over the large fireplace in the southern end of the main room. Exposed on the ground floor in a corridor leading along the eastern side of the chimney breast (Plate 5), this frame was evident in a space over the chimney stack behind the southern wall of the southern bedroom. Here it could be seen that both blades of the cruck survive together with at least one pair of butt-purlins on the eastern side of the house (Figure 4, Plates 6-8) The purlins appear to have been truncated at the cruck frame, presumably this occurred when the roof was heightened and to allow for more room in the bedrooms.

The main ground floor room has a beamed ceiling (Plate 9) consisting of a main cross beam running across the main axis of the house with a longitudinal beam running from the chimney breast to the wall containing the post and plank partition. The remaining space is further divided by a series of joists with bevelled housed joints into the main cross beam (Plate 10). Both beams and the joists are chamfered. The cross beam having curved stops at both ends of the beam. The longitudinal beam is only stopped at its joints to the cross beam and where it meets the northern wall of the room with stepped stops (Plate 11). The joists are stopped only where they meet the cross beam with curved and slightly stepped stops (Plate 12).

The first floor of Ty Mawr consists of a small central landing from which two bedrooms and a bathroom open. It is only behind the southern bedroom, in a space over the chimney breast, that the southern cruck frame is evident.

The barn is aligned along with the A494 and is part of a range of agricultural buildings assumed to once be associated with the house, although now under different ownership. The sampled barn is the central section of a longer range extending both to the west and east of the original building (Figure 5). Externally the barn is constructed of random stonework standing to a height of 1.8 m which is lower than the flanking buildings in the range (Plate 13). Currently it has a corrugated iron roof covering. Three doorways pierce the southern wall, the most easterly of which is clearly inserted as it has a modern brick casing. Two air vents

are evident, externally in the northern wall of the barn (Plate 14). The barn attached to the north has an external stair leading to a hay loft. This also gives access to the gable end of the original building.

Three original trusses were located within the barn, two of which were sampled by Oxford Dendrochronology. The eastern gable end has a truss resting on the stone walling (Figure 6). The slight curving at the base of the principal rafters would suggest this may have originally been a cruck frame. There is a tie-beam sitting on the stone wall and a higher collar linked by queen struts. The tie-beam extends beyond the extent of the principal rafters, onto the side walls of the barn. It has half lap joints with the principal rafters which are pegged (Plate 15). The truss was obscured by a sacking screen; however it was possible to determine that there were cut outs for two pairs of purlins which are occupied by butt purlins, probably of a later date (Plate 16). There was also a ridge purlin.

The internal trusses were clearly of cruck construction, both sitting on the dwarf stone walls. Truss 1 (Figures 5 and 7, Plate 17) has a collar and a wooden staple across the joint where the principal rafters join which are both assumed to be original. There is also a lower tie-beam which is clearly of a later date being only pegged to the face of the truss (Plate 18). The original (higher) collar is tenoned and pegged into the principal rafters and has two mortice holes and a series of dowel holes (Plate 19) on its underside suggesting the possible position of a division within the building. Similar dowel holes in the principal rafters also suggest this division extended above the collar.

Truss 2 (Plate 20) is similar to Truss 1. Its full extent is partly obscured by the insertion of a hay loft between Truss 2 and the gable end truss which is supported by a later tie-beam (Plate 21). Once again there are two mortice holes and a series of dowel holes on the underside of the collar suggesting a division within the building.

### ***Dendrochronology Sampling***

Four samples were taken from the house; these were from the lower purlin on the north side of the house, the cruck blade of the north side of the chimney on the first floor, the cross beam in the main ground floor room and a longitudinal beam west of the chimney in the same room. Whilst the purlin and cruck samples are assumed to date the original construction phase of the house the two ceiling beam samples are assumed to relate to the insertion of the upper storey into the house.

A further two samples were taken from the barn; one from each of the internal cruck frames

## **Conclusions**

### ***Ty Mawr House***

At least three main phases of activity can be defined in the house. These can be summarized as:

1. A late medieval hall house of 'gentry' type including the two cruck trusses and the post and panel partition.
2. A storeyed house of regional type to include the insertion of the main chimney and the timberwork associated with the insertion of an upper floor.
3. The modification of the house and division of the north end of the range into a separate dwelling including the heightening of the roofline and construction of the current slate roof.

It is not certain whether more of the original hall house survives. The property to the south west was not inspected: however, the purlins seen behind the southern bedroom appeared to extend at least into the dividing wall. The house was divided from the rest of the range by the current owner on his retirement and the extent to which this affected the survival of the original hall house is uncertain.

### ***Barn***

The relationship of the barn to the development of the house will hopefully be clarified by the dendrochronology; however, the similarity of the cruck frames within both buildings is suggestive. It was also noticeable that a barn with a similar external appearance exists at Four Crosses only approximately 250m to the southwest. This building; however was not inspected in any detail.

### ***Acknowledgments***

The recording of these buildings was commissioned by Margaret Dunn for the North Wales Dendrochronology Project and she also organised access to the building. Thanks are particularly due to the owners of Ty Mawr for their forbearance during the recording of the house. The Barn is owned by Denbighshire County Council who is also thanked for the access to this building. The buildings were also visited by Richard Suggett of the Royal Commission on the Ancient and Historical Monuments of Wales, whose analysis of the buildings was extremely useful.



Plate 1: Front elevation looking SW.



Plate 2: Base of the northern cruck frame, west side of house, looking NNE



Plate 3: Base of the northern cruck frame, east side of the house, looking north.



Plate 4: Post and plank partition, looking NNE



Plate 5: Base of the southern cruck frame, looking NNE

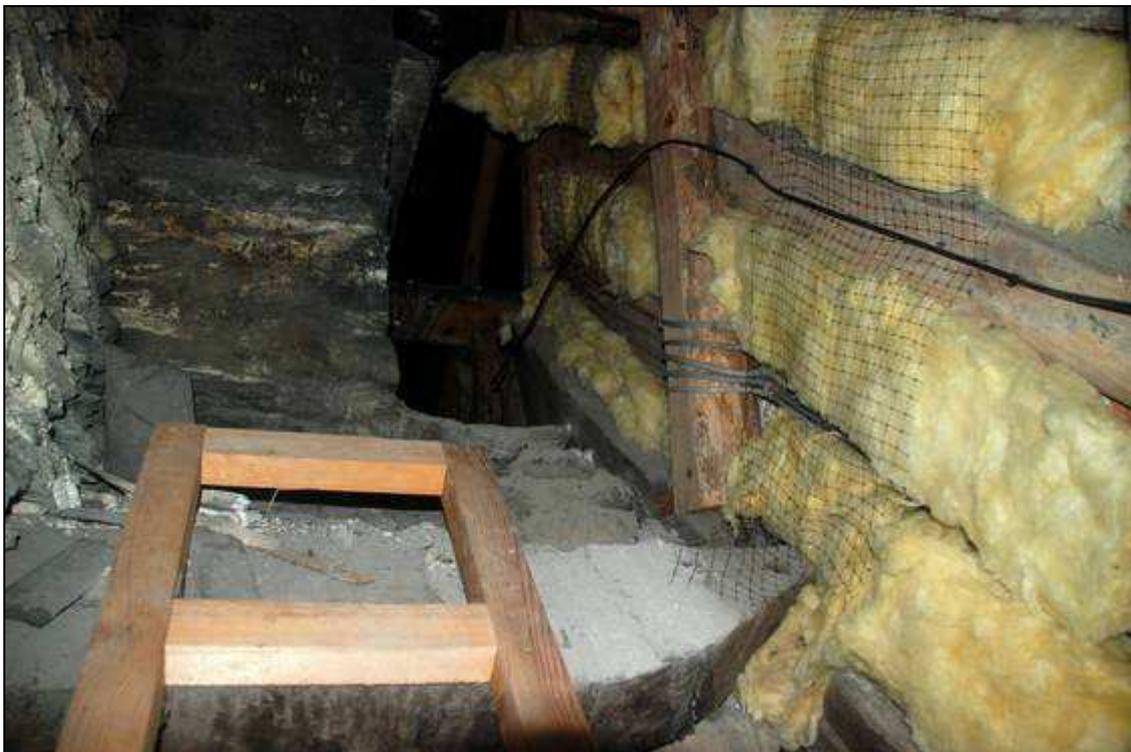


Plate 6: Top of the southern cruck frame, looking NNW and up



Plate 7: Base of southern cruck on the upper floor, looking NNE



Plate 8: Lower purlin on the eastern side of the building, looking NNE



Plate 9: Beamed ceiling in the main ground floor room, looking NW



Plate 10: Detail of relationships between the cross beam, and the joists



Plate 11: Stepped stop on the longitudinal beam



Plate 12: Curved and slightly stepped stops on joists



Plate 13: Barn looking west.



Plate 14: Air vents in the northern wall of the barn, looking SE



Plate 15: Half lap joint between the principal rafter and tie beam on the barn gable end truss looking SE



Plate 16: Butt purlins on the barn gable end truss, looking west



Plate 17: Barn truss 1 looking west



Plate 18: Barn truss 1, possible later tie-beam, looking south



Plate 19: Barn truss 1, mortise and dowel holes on underside



Plate 20: Barn truss 2, looking NE



Plate 21: Base of Barn truss 2, looking west

## Appendix 1: Sources

### Listing information

#### TY MAWR, FOUR CROSSES

Street Name and Number: ,

Listed Building Reference: 15549

Grade: II

Date Listed: 01/02/1995

Date Amended: 01/02/1995

Co-ordinates: 303555,343123

Locality:

Community: Corwen

Council: Denbighshire

National Park: No

Location

History

Interior

Exterior

15549 On the SE side of the A494, between Druid and Four Crosses. History: Probably originally built as a small farmhouse in the C16, extended later and now subdivided to form 2 dwellings. The earliest part of the house comprises a 2-unit, cruck-framed dwelling, doubled in length by a later addition which now forms a separate house. The original building may have had an entrance backing onto the stack in the principal room, and a second (heated) room beyond. The present staircase and entrance lobby between the two rooms is almost certainly an insertion. Exterior: Render over rubble, the earliest part of the range (to the right) internally cruck framed; slate roof with end wall and axial stacks. One and a half storeys; the 2 dwellings each have paired dormer windows aligned with doorway and window below; further window in what may have been the original doorway backing onto the axial stack on what is now the dividing wall, but which would formerly have been the outer gable of the original house. All windows renewed and enlarged. A range of later outbuildings adjoins the original house to the right. Interior: The earliest part of the building has doorway (probably secondary, and dating from the insertion of a staircase) giving access to lobby at foot of stairs, and small room to its right. Main room is to the left, and has massive bressumer to fireplace recess, spine beam and heavy joists to ceiling, all chamfered with decorative stops. Heavy post and panel partition divides the room from the stairs. Cruck trusses partially visible behind this partition, and in the fireplace bay. Although the external features have been altered, Ty Mawr represents a remarkably intact survival of a small C16-C17 cruck framed house.

Reason for Listing

## References

### **BARN AT TY MAWR, FOUR CROSSES**

Street Name and Number: ,

Listed Building Reference: 15550

Grade: II

Date Listed: 01/02/1995

Date Amended: 01/02/1995

Co-ordinates: 303536,343138

Locality:

Community: Corwen

Council: Denbighshire

National Park: No

## Location

## History

## Interior

## Exterior

15550 Built alongside the road at Ty Mawr, which is on the A494 between Druid and Four Crosses. Built in at least 3 phases, but the earliest part of the range, which is cruck framed, may be C16 or C17. This is the central section, externally random rubble with timber framed upper section, comprising short posts running between wall plate and sill, clad with corrugated iron sheet; similar sheet roof covering. Internally this section has 2 pairs of raised crucks, supported by the stone plinth wall, and with rough tie beam, collar and saddle. Stable forms extension of this range to the NE: rough random rubble with slate roof; single bay with external staircase leading to gabled loft entry to left, and doorway with timber lintel to right. Further extension to SW may have been a former shippon: rough random rubble with corrugated iron sheet to roof, stone coped gable; 3 doorways, the outer 2 now partially blocked as windows. Part of a group with the farmhouse at Ty Mawr, the barn is an unusually intact example of its constructional type, with the survival of the cruck frame, and the external walls which combine a high stone plinth and timber framing - a type of construction once common in the area, but now becoming rare.

## Reason for Listing

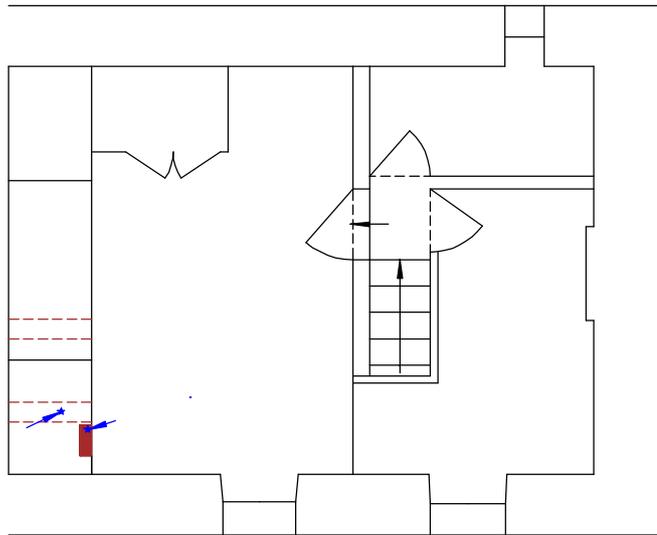
## References





Figure 1: Ty Mawr, Druid  
Location  
Scale 1:25,000

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\* Location of samples

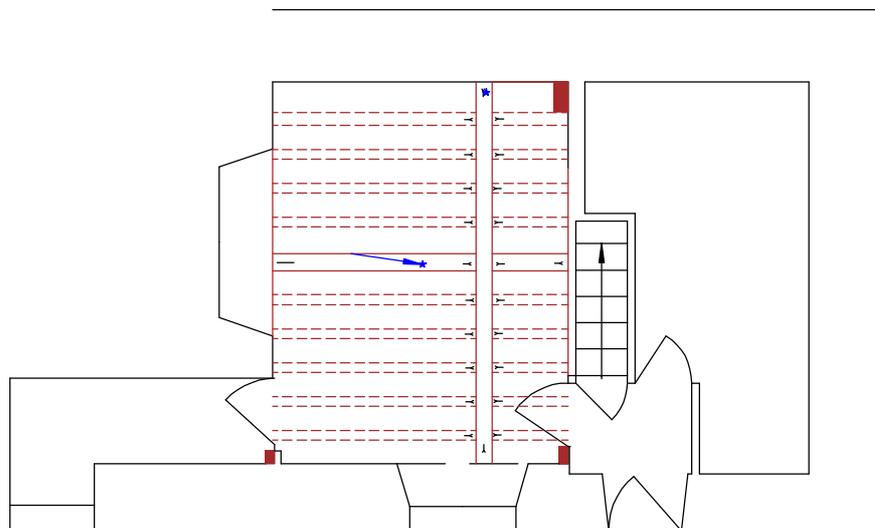


Figure 2: Ty Mawr, Druid  
Scale 1:100

SW

NE

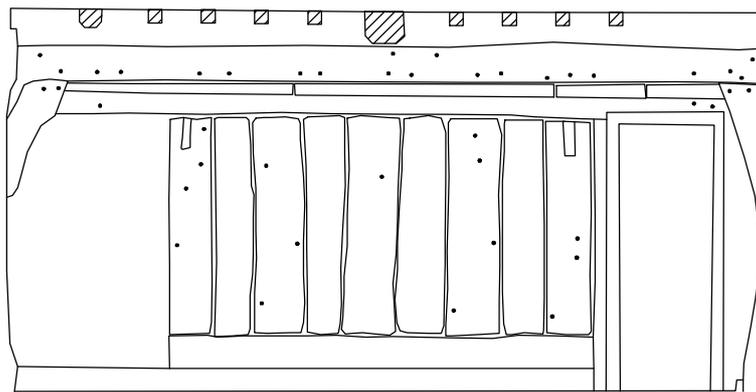
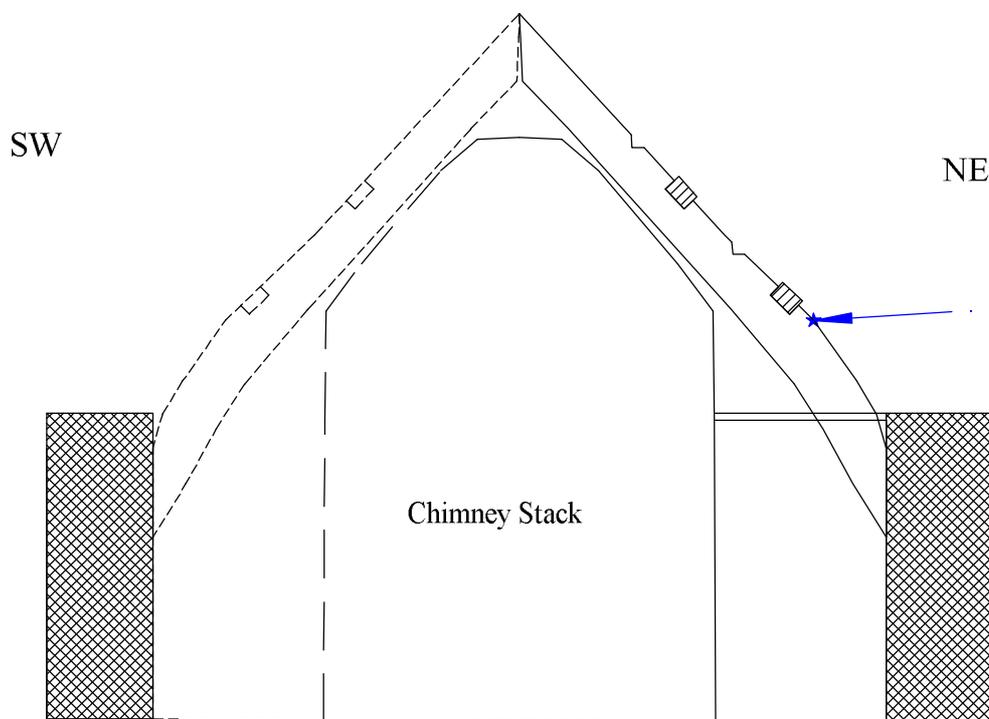


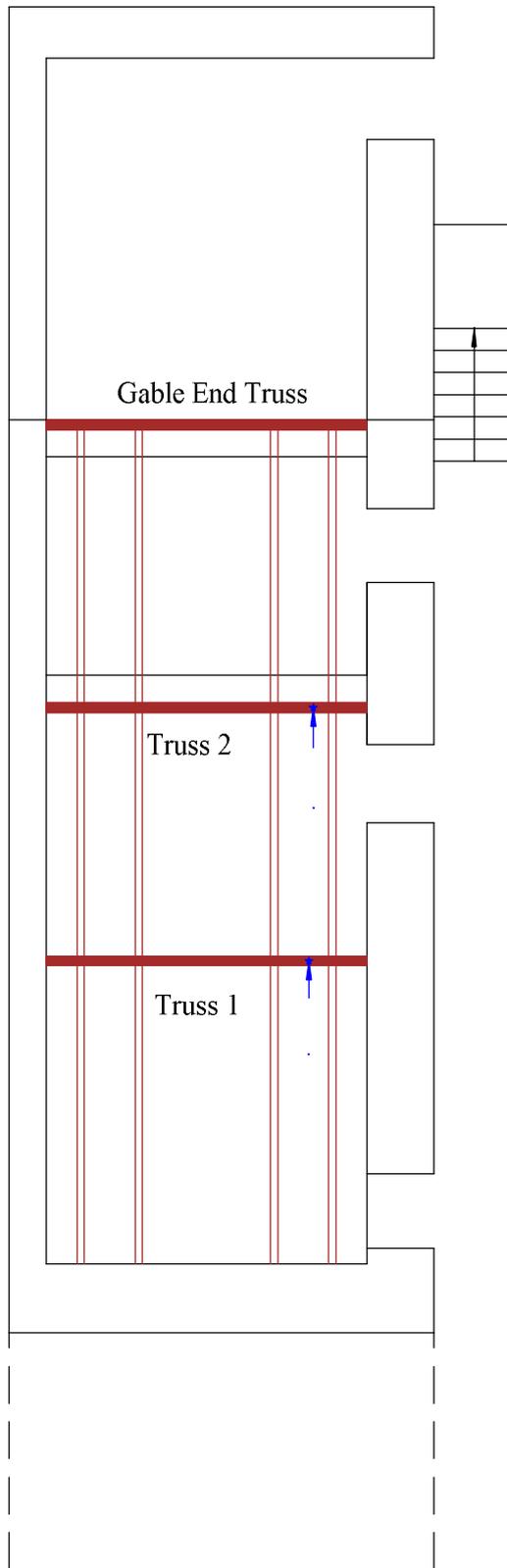
Figure 3: Ty Mawr, Druid: Partition and Base of Crucks  
Scale 1:50



Truss over inserted fireplace

★ Location of samples

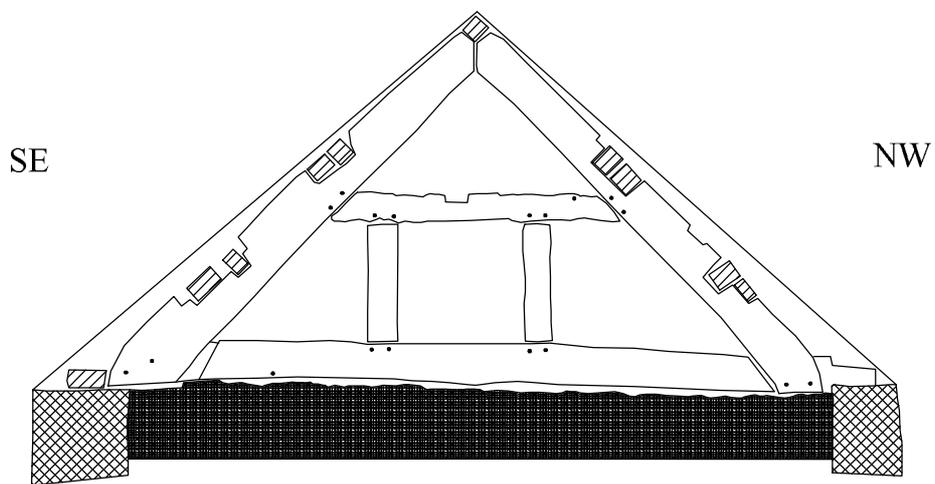
Figure 4: Ty Mawr, Druid: Cruck Frame Over Chimney  
Scale 1:50 (approx)



\* Location of samples



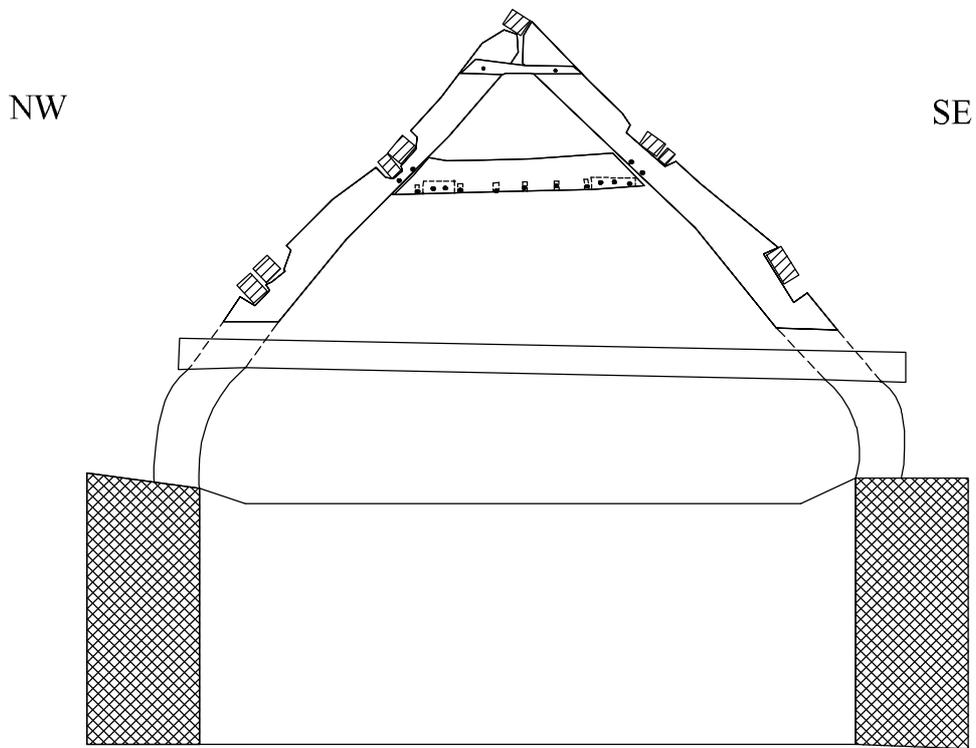
Figure 5: Ty Mawr, Druid, Barn  
Scale 1:100



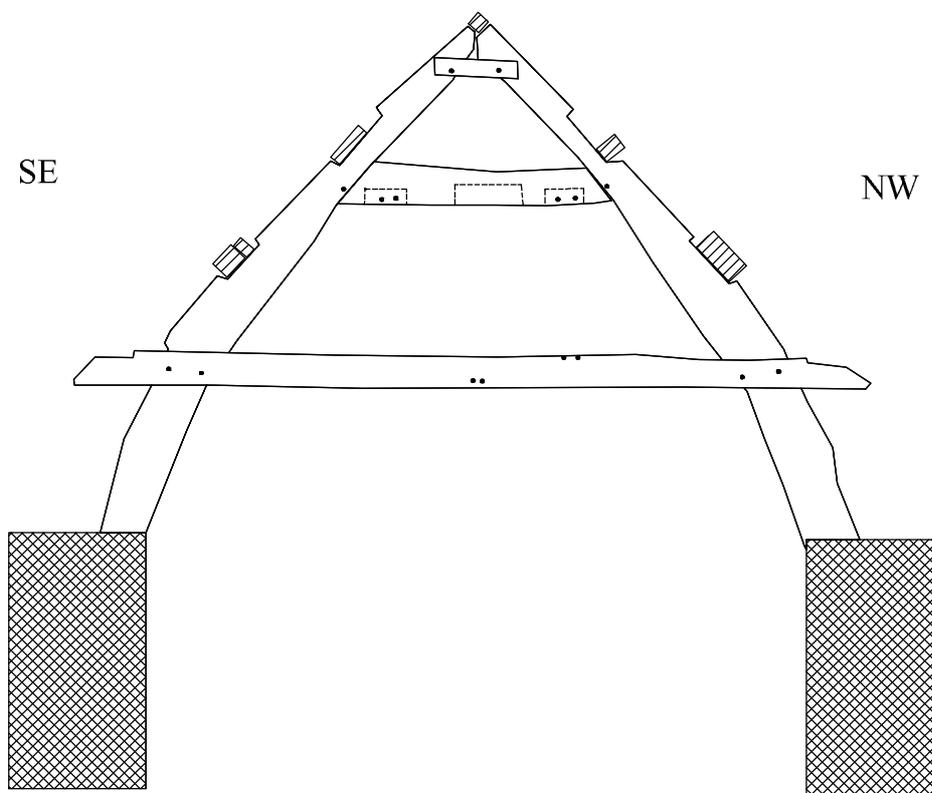
Gable End Truss



Figure 6: Ty Mawr, Druid: Barn Gable End Truss  
Scale 1:50



Truss 2



Truss 1



Figure 7: Ty Mawr, Druid: Barn Internal Trusses  
Scale 1:50